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A WEEKLY REVIEW OF THE GERMAN PRESS

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EEC members not in the mood for compromise

Kleiner Nachrichten

The Nine are not of a mind to compromise at the moment, neither in their attitude towards the new Israeli government nor on thermonuclear fusion and the Jet project nor on human rights.

Yet when compromise is not on the agenda the Common Market tends to have a helpless look. This is particularly apparent where economic recovery within the European Community is concerned — an objective which really does call for joint endeavour.

Self-interest prevails, even towards Israel, which accounts for the most trenchant Middle East policy statement ever framed by the EEC — a statement, incidentally, which fully accords with current US policy.

The Palestinians, the Nine now claim, have a right to a homeland — a straightforward term which the EEC translators have chosen studiously to circumvent in

The borders envisaged clearly do not include, as the Nine see it, the Arab territories occupied by Israel since 1967.

This point is put forcibly to the new Israeli government, coupled with a warning to Mr Begin to refrain from either comments or policies of a warlike nature.

Peace talks must on no account and in no way be prejudiced, the Nine note, framing a joint policy that must surely be very much in keeping with Arab wishes.

The Common Market countries are clearly motivated by anxiety lest fighting is resumed in the Middle East and another Arab oil embargo becomes a distinct possibility.

The Nine do not entirely dismiss the idea of participation in a UN peacekeeping force in the Middle East, although they do not, for that matter, go so far as to offer to do so.

This fairly uncompromising joint stand on the Middle East was dictated by what might be termed joint self-interest, whereas national self-interest remains the hallmark of the debate on nuclear fusion research.

Whitehall is not prepared to part company with the Joint European Torus project and insists that Jet stays put at Culham, near Oxford, rather than transferring to Garching, near Munich.

On the other hand Whitehall also refuses to pay its full share of eighteen per cent (as against a transitional fourteen per cent) of the EEC budget from next year. Were Britain only prepared to foot its share of the Brussels bill, a compromise might well prove possible.

Bonn might then, or so it seems, abandon its political misgivings (which are shared, incidentally, by smaller members of the Common Market) and allow Britain to keep Jet.



Britain's Prime Minister James Callaghan, left, with President Giscard d'Estaing of France and this country's Chancellor Helmut Schmidt at the EEC summit in London on 29 June

(Photo: dpa)

**Janos Kadar
of Hungary visits
Bonn**

Kölner Stadt-Anzeiger

Hungarian leader Janos Kadar's three-day official visit to Bonn testifies to the normalisation of relations between the two countries.

This particular item on Bonn's Ostpolitik agenda may have come a little late in the day, but Mr Kadar's visit, originally scheduled for last year, had to be postponed.

The Hungarian leader has paid the West more frequent visits in recent years, calling to mind his country's traditional ties. Can historic friendships survive an ideological reorientation in this way?

There can certainly be little doubt that Hungary postponed the establishment of diplomatic ties with Bonn until December 1973 mainly out of consideration for its allies, especially Czechoslovakia.

Even before formal links were forged, bilateral contacts flourished at many levels: Hungary, unlike other communist countries in Eastern Europe, has an ethnic German minority that was never a political problem.

Hungary's German minority community, which numbers some 200,000 people, has always — since the war, that is — been regarded by the GDR as its responsibility.

Ethnic Germans living in Hungary have not opted en masse to apply for exit permits to start a new life in the West. Occasional instances of families separated by political divisions have invariably been settled to the satisfaction of all concerned.

Since the establishment of diplomatic relations between Bonn and Budapest the Foreign Ministers have held regular consultations. In 1974 Walter Scheel

Continued on page 2



Hungarian leader Janos Kadar with Chancellor Helmut Schmidt in Bonn on 4 July
(Photo: Sven Simon)

■ LAW

Guilt principle abolished in new law on divorce

The new law on marriage and the family, effective from 1 July, will mean a fairer, but generally also a more long-drawn-out procedure, for divorce. The annual number of divorces is at present more than 100,000. The main points are:

The first sentence of the new law on marriage is that "Marriage is entered into for life." It underlines the guarantee in the Basic Law to give special protection to the family and the institution of marriage.

The new law is based on the principle of equal rights and duties for both partners. It does not acknowledge any traditional roles or privileges. Both partners

Financial help from the State for victims of violence

Since 1 January 1977 this country has been providing another social service, yet hardly any of its citizens seem to know anything about it.

According to the so-called Law on Compensation for Victims of Violence which has effect retrospectively from 16 May 1976, victims of violence can receive financial assistance from the state if their earning capacity is permanently affected as a result of a crime committed against them.

Ludwig Crössmann, president of the Hessian Provincial Maintenance Office in Frankfurt, complains that "our maintenance offices in Hesse have only received 195 applications from victims, although the number of victims entitled to apply is certainly far higher."

The new law, which is meant as a further step along the road to making this country a fully social state carries out the promise made in the Basic Law to provide compensation for any citizen making a sacrifice for the good of the community.

The payments are based on those made to war victims. Permanently disabled victims of crimes receive state compensation according to the degree of their incapacity.

This can range for a subsidy for medical treatment to a monthly pension to compensate for financial losses incurred as a result of a crime.

The state can only be required to pay up if there has been a premeditated illegal attack on the person, in which the victim's health is permanently damaged. Damage to health is only recognised as permanent if the consequences of the injury last for more than six months.

Several clauses have been inserted into the law limiting the conditions under which payment can be made. This is to prevent shrewd citizens from fiddling the state out of tax revenue which is already in short supply. For example anyone who starts a fight in a public house in the course of which he is injured cannot expect any financial assistance from the State. Moreover, these payments can only be claimed if no other organisation — health insurances or professional associations, pay the costs the victims incur. dpa

(Bremen Nachrichten, 24 June 1977)

STUTTGARTER NACHRICHTEN

should decide "by mutual agreement" who is going to run the home and whether one or both partners is to work.

Partners will however have to take the family into consideration when choosing and pursuing their professions.

The regulations on divorce are the main item of the new law. The new law on divorce is a radical departure from the old one. In it the guilt principle is replaced by that of breakdown of marriage, i.e., what counts is not the guilt of one or other partner, but simply whether or not the marriage has broken down.

Maintenance: In principle each partner is responsible for his or her own maintenance after the divorce. If a couple have been separated for periods from one to 5 years this is taken as evidence of breakdown. The details are as follows:

- If the partners have been living apart for less than a year, divorce is only possible if continuation of the marriage would be intolerable because of the partners' behavioural traits.

- It will be assumed that the marriage has broken down irreversibly if the partners have been living apart for a year and both apply for a divorce or if the partner against whom the suit is being brought agrees to it.

- If the separation has lasted more than 3 years, the marriage is to be summarily dissolved. For special reasons and in exceptional cases this period can be extended to 5 years.

Serious illness of the partner being

sued, financial difficulties or considerations of the children's well-being can constitute such exceptions.

- After a 5 years period the marriage is to be dissolved regardless.

If there is still a prospect of reconciliation, the court can suspend proceedings for up to a year before the three year separation period has elapsed and, after three years, proceedings can be suspended for up to six months.

Spouses can be separated for legal purposes even if they are living in the same flat. The decisive factor is whether partners are really living together in the true sense of the word.

The same applies if one spouse completely rejects the other. Short periods of living together for the purposes of reconciliation are not considered as a break in the period of separation.

Maintenance: In principle each partner is responsible for his or her own maintenance after the divorce. If a partner cannot provide for himself or herself the other partner can be required to do this in certain circumstances. These are:

- If it would be unreasonable to expect him or her to take up employment a) because of the need to look after or bring up a child, b) because of age, or c) because of other physical or mental disabilities.

- If the partner cannot find, or loses, suitable employment;

- in order to continue or complete a course of study or training which he did not pursue because of marriage;

- for further studies or retraining to compensate for disadvantages which arose through marriage;

- if for any other grave reasons the partner cannot be expected to take up employment and it would be unjust to refuse maintenance.

Wulf Peitzold
(Stuttgarter Nachrichten, 28 June 1977)

Constitutional Court advocates law to suspend life terms

The Constitutional Court in Karlsruhe, the highest court in this country, has rejected in a 105-page-long judgement the legal objections of the Provincial Court in Verden, which did not want to sentence a convicted murderer to life imprisonment, the highest penalty.

The Court conceded that life imprisonment was an exceptional infringement of basic rights, because it literally meant the offender's exclusion from free society.

This raised a number of legal and criminological points which legislators had to decide on and up to now they had decided to retain the penalty of life imprisonment for the most serious crimes.

The Constitutional Court had to decide on the basis of the Verden documents whether their decision was compatible with the constitution.

However at present the situation seems to be quite clear.

Life imprisonment did not violate the

principle of man's dignity, because Article 1 of the Basic Law, which protects the dignity of man as an inalienable right, fixed the interpretation of the nature of punishment and its relation to crime. Every punishment must be appropriate to the gravity of the crime and the degree of the criminal's guilt.

The community had a right to protect itself against dangerous criminals, but here again the principle of the punishment fitting the crime must apply. The offender should never be used as a mere example to deter others in the fight against crime. Forcibly depriving a man of his freedom without giving him the chance of regaining it was incompatible with the idea of human dignity as understood in the constitution.

The possibility of a pardon did not in itself constitute an adequate formal and legal guarantee that the offender would have the chance of regaining his freedom. However at present the situation seems to be quite clear.

The Constitutional Court therefore required Parliament to prepare a set of

regulations and conditions for the suspension of life sentences.

This did not involve a break with the principle of guilt, nor was there any reason to fear a reduction in the deterrent effect of life imprisonment. It was simply meant giving proper legal form to what was at present normal practice.

In the Court's view, life imprisonment for murder did not violate the constitutional requirement that punishment should be reasonable and appropriate.

This punishment had an important function as a sanction against murder, reflected society's sense of the value of human life and it clearly showed society's disapproval of the act of murder.

It did not preclude rehabilitation murderers at a later point and ensured that the criminal repaid his debt to society.

Justice Minister Hans-Joachim Voß (SPD) welcomed the court's decision. He said in Bonn that the decision confirmed life imprisonment as an appropriate reaction to serious crimes. The court's decision also confirmed his view that courts should be empowered to grant conditional releases after a minimum period of a life sentence had been served. In his opinion this minimum should be 15 years. Kautzsch

(Die Welt, 22 June 1977)

(Kölner Stadt-Anzeiger, 21 June 1977)

TRADE**EEC and Efta remove tariff barriers**

Tariff barriers between EEC member states and the member nations of Efta were removed on 1 July, but the work of customs officials is unlikely to diminish.

Although a free trade zone has been created, made up of the nine states of the European Community and Switzerland, Norway, Sweden, Finland, Austria and Portugal, with some 300 million inhabitants — a zone in which no customs duty is levied except for some sensitive goods and for agricultural products — the flow of goods nevertheless has to be subjected to the same stringent checks as before.

These checks are a necessity rather than chicanery on the part of officialdom. The necessity arises from the difference between a tariff union, as in the case of the EEC, and a free trade zone, as in the case of Efta.

In a tariff union, all member nations remove not only tariff barriers between each other, but they also levy uniform customs duties on all imports from non-member states.

As a result, a product which has been imported into the Federal Republic of Germany from a non-EEC member country via France will have the same duty levied on it as if it had been imported directly.

On the other hand, the member nations of a free trade zone remove tariff barriers among each other, but they do not introduce a common customs duty for imports from non-member states.

This means that duty-free trade can only apply to goods originating in the zone itself. If the abolition of duty were not restricted to such goods, products from non-member states would be imported via the country that levies the lowest duty at its borders.

This would result not only in a diversion of the flow of trade, but also in diminished revenues from customs levies for the country of destination.

Moreover, tariffs serve to protect the domestic industry and this protective wall could be bypassed. Therefore, the abolition of tariffs within a free trade zone — as between EEC and Efta — must be restricted to goods originating in these countries.

But what is a country of origin in this context? This question can only be clearly answered in cases where a raw material is processed in its country of origin.

If, on the other hand, raw materials are imported, the whole issue becomes more complicated because what matters in such cases is the degree of processing. Such a qualifying degree of processing can be assumed when the finished product occupies a different position on the tariff list than the materials used in making it.

Furthermore, it is necessary that there be a certain value added in order that the processing country be recognised as country of origin. But this, too, is only so in principle. There are obviously many exceptions.

Moreover, the EEC has not only concluded an agreement with Efta, but also with each of its seven member states.

The control of country of origin regulations is becoming the more impor-

tant the more tariffs are abolished, and this means that our customs officials will have plenty to do in the future as well.

Disputes about origins have almost become a ritual in foreign trade. And to make matters worse, there is plenty of latitude for arbitrary action — particularly so since this could provide a back door for protectionist measures.

Notwithstanding all these facts, the first of July is an important date for the German economy. As a result of the new regulations, some 60 per cent of this country's foreign trade will no longer be subject to added costs resulting from tariffs.

The Federal Republic of Germany exported goods to the tune of more than DM40,000 million to Efta states in 1976. That was the equivalent of about 16 per cent of West Germany's total exports. The Efta share in imports (DM21,000 million) amounted to about 10 per cent.

For the EEC as a whole, trade with Efta carries more weight than that with the United States, Canada, Japan, South Africa, Australia and New Zealand combined.

Whether or not the abolition of tariffs will lead to a rapid expansion of trade depends (considering the unstable economic situation at present) on whether the 16 states of the free trade zone will manage to get out of the doldrums.

It must furthermore be borne in mind that since the treaties between EEC and Efta came into force on 1 January 1973 in conjunction with the EEC memberships of Britain and Denmark, tariffs have been gradually reduced so that the effect on prices is not particularly great.

Even so, the first of July marks a further step towards closing the gap between the two economic blocs.

Hans-Jürgen Mahnke
(Die Welt, 29 June 1977)

Eurobankers call for better credit information

Bankers in the Federal Republic of Germany are concerned about developments on Eurocredit markets.

In recent years, many countries have excessively strained their credit potential and, according to the bankers, it is becoming increasingly difficult to check creditworthiness in times of high balance of payments deficits.

The Federation of German Banks demands a comprehensive collection of all data that would provide information on the indebtedness of states. Only thus, they maintain, will it be possible to prevent excessive indebtedness of the individual countries.

Credits to the tune of 27,400 million dollars were taken up on Euromarkets in 1976. Of this amount 10,200 million dollars (37.1 per cent) went to the developing countries, which means that their credit requirements for the first time exceeded those of the OECD countries (35.9 per cent).

The East bloc availed itself of 1,600 million dollars (5.7 per cent). It is noteworthy that the oil-exporting countries made heavy use of credit facilities notwithstanding their enormous trade surpluses. They took up credits to the tune of 3,800 million dollars or 14 per cent of the overall volume.

Third World indebtedness on Euromarkets at present amounts to about 180,000 million dollars. The Comecon countries are indebted to the tune of some 45,000 million dollars.

But since both groups are not only borrowing, but also investing on Euro-

Frankfurter Rundschau

markets, their net position looks somewhat more favourable. Even so, the debts exceed their deposits.

Last year, Brazil (2,400 million), Mexico (2,200 million) and Venezuela (1.5 million) ranked among the largest borrowers. Poland is the biggest of the individual borrowers (470 million).

In order to assure a smooth opening on Euromarkets, the banks have started charging additional interest on credits. These added rates amounted in the second half of 1976 to 1.87 per cent above the London Inter-bank rate for developing countries and 1.51 per cent for the industrialised nations.

On average, this added rate almost doubled from the beginning of 1976 (0.95 per cent) until the end of 1976 (1.69 per cent).

During the same period credit durations dropped from nine to five as three-quarter years.

The Federation of Banks does not consider a general moratorium on debts for the developing nations as a suitable means for solving their problems. One action, the bankers believe, would best serve to undermine the creditworthiness of these countries.

W. Hohegger
(Frankfurter Rundschau, 29 June 1977)

EEC and China determined to step up trade

A delegation of the EEC Commission embarked on the hitherto greatest foreign policy adventure of the European Community at the end of June.

This delegation is to complete preparations for official negotiations leading to a treaty between the EEC and the People's Republic of China on increased trade and economic cooperation.

In the course of July (the delegation is expected to return from Peking on 11 July) the nine member nations of the Community will receive the draft of negotiation guidelines from the EEC Commission in Brussels.

Following a decision by the European

Communist diplomat accredited to the EEC Commission.

The elegant Chinese diplomat — usually clad à la Mao, but in natural silk — has gained a certain fame in Brussels... and that not only because of the exquisite cuisine at his residence.

Anyone who has ever eaten at his home knows how to differentiate between run-of-the-mill Chinese restaurant fare and the real McCoy. But Ambassador Li Lien-pi has more to offer than food.

China has been supporting the unification of Western Europe for political reasons.

Foreign Minister Tchiao Yan-hue said before the UN General Assembly on 5 October 1976 that it was "necessary to create a powerful Western Europe." And the Chinese representatives in Brussels made it clear that, given equal quality and equal prices, they would give preference to European rather than American goods — let alone those of the Soviet Union.

And when the EEC early this year raised maximum import quotas from communist countries, China was given preferential treatment, with its quota being disproportionately increased.

The EEC member nations have been trying for years to avoid transferring foreign policy authority to the Community.

This is feasible because the Treaty of

Rome, which dates back to 1957, stipulates that foreign trade policy falls under the jurisdiction of the Community while at the same time omitting to stipulate the same for the related foreign economic cooperation policy since its intents and purposes this did not fit at the time.

Peking, on the other hand, seems to be greatly interested in trade and cooperation with the EEC rather than with individual member nations which are less interesting for People's China and its 900 million population.

There is likely to be a considerable tug-of-war within the EEC before the autumn when the Council of Ministers is to present its negotiation guidelines to the EEC Commission.

Brussels would like to force a decision to the effect that trade and cooperation cannot be artificially separated.

Peking wants Europe to supply factories on a turn-key basis, for which it would like to pay with the goods manufactured in these factories. Trade and cooperation can thus very well be attractive as cost-saving expedients.

More than half of the ships sailing under flags of convenience were built within the past ten years — more than 30 of them in Japan.

Coastal shipping companies are also increasingly resorting to flags of convenience. Of the 60 ships under such flags of less than 1,600 GRT, 25 are offshore supply ships operated under Singapore flag by DDG "Hansa" and VGT-Bremen.

This information has been culled from *Schiffsliste 1977*, the 1977 list of shipping by Eckart & Messstorff which this year for the first time contains a separate list of German ships under foreign flag.

Although the total tonnage registered in Singapore amounts to 487,000 GRT,

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THE GERMAN TRIBUNE

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SHIPPING**Shipowners call for action against East bloc dumping**

an amendment of the foreign trade legislation — a move which the Federal Ministry of Economic Affairs opposes.

What matters, however, is that something be done because our shipowners have credibly pointed out that Eastern dumping practices are threatening their existence.

Parallel with national activities, Europe's shipowners associations in Brussels are now trying to form a common front, although this has proven difficult in the past. It therefore remains important for Bonn to take action.

Gerd Brüggenmann
(Die Welt, 27 June 1977)

UN Sea Freight conference in Hamburg next year

The Federal Republic of Germany will for the first time host a worldwide diplomatic conference next year. The Senate of Hamburg has been told by the United Nations that the 1978 UN Sea Freight conference will be held in that city.

According to Senator of Justice Gerhard M. Meyer, some 400 to 500 delegates from all countries of the world will attend the Hamburg conference, scheduled to take place from 6 to 31 March, where an international agreement on sea freight law is to be passed.

The UN Committee for International Trade Law (UNCITRAL) spent ten years in preparing the agreement which is to be signed in Hamburg.

The Committee, with its membership of 36 nations — among them the Federal Republic of Germany — was commissioned by the UN General Assembly to work out a trade law which would be uniform throughout the world.

In this connection Herr Sager pointed out that the Soviet Union last year carried twice as much freight between Europe and East Africa as did its German competitors.

Germany's shipowners advocate a mutual shipping agreement with fixed quotas for the various routes. But negotiations to this effect have been blocked by the Soviets for some time.

As a result, plans are now under consideration whereby quotas would be introduced in German ports for all government-subsidised cargoes — and this obviously includes all Hermes-insured shipments.

But unfortunately present legal provisions are inadequate for the implementation of such measures. The Ministry of Transport therefore intends to propose

in cases of serious oil alerts the squad immediately requisitions a helicopter from which two officers take photographs and direct the special environmental protection car of the squad. Oil samples are analysed, which makes it possible to establish the likely culprit.

The final proof is provided by an analysis at the Biochemical Institute of Hamburg University.

The officers also check the tank and pipe systems on board. All of them are familiar with the workings of ships since they are either mariners or marine engineers. On top of this, they had to learn a thing or two about chemistry.

Although initially viewed with scepticism by other government agencies, the anti-pollution squad of the police has earned the respect of the Hamburgers.

Following checks by squad members, some industries have already been presented with more stringent regulations concerning pollution.

Some telephone the squad or photograph neighbours when they feel that they have a case against someone.

Among barge skippers, many of whom have been caught and have had to pay fines, it has become customary to warn each other at the sight of the helicopter: "Watch out... the oil boys are coming!"

Frankfurter Allgemeine Zeitung für Deutschland, 22 June 1977

'Watch out, the oil cops are coming!'

Cops like to catch "big fish". Some of Hamburg's Waterways Police take this literally, and the men can be seen casting their 25-meter long lines from the harbour wall — and all that while on duty.

This seemingly scandalous state of affairs has a sound reason. These men are members of an anti-pollution squad and whenever they cast their lines they are on the track of polluters.

Instead of a hook, their lines carry an oil-absorbing cube which, following chemical analysis, helps track down the culprit.

Some 38,000 seagoing ships are handled in Hamburg every year. Last year alone, an oil alert had to be issued 112 times — 96 of these alerts having been within harbour precincts; 50 such alerts were sounded in the first five months of this year.

The nine-man special squad, which was formed in February 1976, is unique in the Federal Republic of Germany. Their operational area extends over 300 kilometres of the Elbe River, from the border with the GDR near Schneckenburg all the way to the light vessel Elbe One.

In Hamburg itself, the group also works as a gas detection unit and measures noise and radio-activity as well.

The men are as much at home in a helicopter as they are on police cutters and the autobahns — in other words, wherever dangerous goods are being transported.

Oil flows into the harbour as a result of negligence while bunkering, due to overflowing tanks and, in many instances, as a result of wrongly adjusted valves.

Says one of the squad members: "Big freighters and river barges frequently risk dumping oil into the water provided it is night and foggy and the tide is ebbing."

Those caught face not only fines of several thousand deutschmarks, but also have to pay for the necessary cleaning up.

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Frankfurter Allgemeine Zeitung für Deutschland, 22 June 1977

■ TECHNOLOGY

Print revolution leaves hot metal out in the cold

Hot off the press? Those were the days. After a run of more than five hundred years the art of printing as devised by Gutenberg is well on its way to being superseded by new techniques that are faster and cleaner.

In the office the duplicator has been replaced by photostat and offset printing machines; newspaper compositors and process workers can wave goodbye to lead and quoins and reglets too.

For over five centuries type has been set in hot lead; now it is the turn of the cold light of phototypesetting and proofing at computer terminals.

The transition was particularly in evidence at Drupa, the Düsseldorf printing and paper trades fair, where linotype machinery, the old familiar standby as far as most people are concerned, was virtually no longer on exhibit.

In a way, of course, linotype marked the beginning of the end of the printer's art as it had survived more or less unchanged since the Middle Ages.

In 1884 Ottmar Mergenthaler, a watchmaker from Württemberg who emigrated to the United States at the age of eighteen, developed the first machine that efficiently set entire lines of type.

This revolutionary innovation paved the way for printing by mass production and at cut-price rates. The days of the craftsman compositor slotting letters, spaces and symbols into position by hand were numbered.

An experienced hand compositor can set, say, 1,500 units per hour. Linotype operators can set type four to six times faster, while machines with a punched tape attachment can set up to 25,000 units an hour.

Thirteen years after Mergenthaler's invention a Hungarian engineer by the name of Przsolc came up with the idea of phototypesetting: beaming the letters on to photographic paper.

The first phototypesetting device that worked was built in 1916, but it was not until 1928 that Edmond Uher, also Hungarian by birth, designed the first phototypesetting equipment that measured up to practical requirements.

Uher's design did not catch on, though, and phototypesetting did not make its breakthrough until after the Second World War — alongside electronics and computers. Phototypesetting has unquestionably ushered in revolutionary changes in the printing industry. Cumbersome machinery has been replaced by optical, electronic and photochemical equipment.

The changeover has been most sweeping in the United States, where lead will probably be as dead as the dodo by the

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end of the decade, but it is also in evidence in the Federal Republic of Germany.

Pages are then laid out and matrices prepared photographically for the press. After this lengthy explanation it remains only to be said that the days of this technique likewise appear to be numbered.

The latest technique involves the use of cathode ray tubes which print out copy by means of electronic light impulses. Combined with digital computers the output can be increased to forty million units an hour.

Thus a 36-page issue of *Deutsche Zeitung*, totalling, say, 900,000 units could be set in a matter of minutes.

Page layout, which in combination with photographic composition consists of pasting up photographic positives on film or paper, is also in the process of being taken over by computers.

Manufacturers are already marketing page terminals that enable the page editor to lay out his page on a monitor screen. Proofing is also done at the terminal. A cursor is beamed at the screen and corrections, insertions and deletions are made there and then.

This techniques has yet to gain a firm foothold, but pundits reckon the

Proofed material is then stored on tape (punched or magnetic). A computer then sets the copy photographically on the required column width at a rate of 100,000 units an hour.

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New ideas have kept Patent Office busy for 100 years

Patent-holders have even included a Bonn Chancellor. Konrad Adenauer once patented a recipe for a special kind of maize bread, but it manifestly failed to make his fortune.

The same was true of Patent No. 1, submitted by one Johannes Zeltner of Nuremberg. It was a red version of ultramarine dye.

The Patent Office in Munich dates back to the Imperial Patent Office, which was established in Berlin on 1 July 1877.

Its records include a number of surprises. There are, of course, the original patent applications for the aeroplane, the telephone and the motor-car. These were submitted by inventors whose names are well known, such as Otto Lilienthal or Alexander Graham Bell.

There are also any number of innovations that did not live up to the inventors' expectations. They never made their breakthrough and now testify merely to what might have been.

Munich also handles registered de-

signs and trademarks, thereby ensuring, for instance, that rival manufacturers cannot market identical brands of detergent.

This registry and the drafting of 20 million documents a year constitutes further part of the work done by Patent Office staff of two and a half thousand.

The Munich Patent Office, which is shortly to be joined by the European Patent Office, is one of the few bureaucratic institutions that virtually pays its way.

Yet Erich Häusser, president of the Patent Office, will hear nothing of allegations that its services are outrageously expensive.

The initial application would certainly seem to be value for money at a mere 100 deutschmarks. A patent valid for full eighteen years costs 10,000 mark but only 3.7 per cent are covered for the full term. Most applicants allow patents to lapse beforehand.

Lone inventors certainly appear to be a thing of the past. Most applications nowadays are submitted by industrial research and development divisions and laboratories. An exhibition in Munich has been arranged to outline the work of the Patent Office over the past century.

(Handelsblatt, 28 June 1977)

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■ ENVIRONMENT

Cleaning up the Rhine now purely a political problem

There must be no slackening in the pace of international cooperation in cleaning up the Rhine, otherwise the water supply on which twenty million people depend will be jeopardised.

Measures undertaken in recent years amply demonstrate that cleansing the effluent that is pumped into the river no longer presents technical problems; the oxygen count has taken a turn for the better.

But this improvement has been more than offset by an increase in the amount of metallic impurities and organic compounds that are less readily biodegradable.

Along the lower reaches of the Rhine organic impurities increased last year, which only goes to show that the situation would have been substantially worse if BASF had not inaugurated its purification plant.

Or so says Maarten Schalekamp of Zurich, president of the International Working Party of Rhine Catchment Area Waterworks. At the organisation's annual conference in Wiesbaden he reiterated his appeal to politicians in the countries concerned to do more faster to keep the Rhine clean.

In his opening address Herr Schalekamp did not restrict his criticism to local authorities and industrial enterprises which still do not purify their effluent satisfactorily, pumping enormous quantities of harmful substances into the river.

He also dealt with the purification measures undertaken in recent years and

six cities and industrial enterprises between them account for half the overall pollution of the Rhine with biode-

gradable substances and the lion's share of more obdurate compounds which jeopardise the supply of tapwater to twenty million people.

Pulp and cellulose are the principal offenders. At low-water mark they have been known to account for up to fifty per cent of the precipitated organic pollution of the Rhine.

The techniques that can be used to ease this burden are no secret. What is more, they are economically feasible, Herr Schalekamp maintains. They need only to be employed.

At Enviro, the Düsseldorf environmental trades fair, representatives of the pulp and cellulose industry promised in February to install purification plant with a view to reducing their share in Rhine pollution to ten per cent of the level registered in 1974.

By 1980, according to Professor Heinrich Sontheimer of Stuttgart, organic pollution of the Rhine, especially pollution by lignosulfonic acid, should have been cut back to such an extent that the quality of water from the river will improve perceptibly.

It must, however, be recalled that organic pollution increased again last year after a distinct improvement the year before.

Waterworks authorities in the Rhine catchment area remain far from happy about the salt count in general and pollution by chlorides and sulphates in particular.

By the terms of the third salt and chemicals agreement, which was signed

on 3 December 1976 in Bonn, the salt pumped into the river by potassium mines in Alsace was to be reduced to twenty kilograms of chloride per second, or roughly six per cent of the total chloride pollution of the Rhine.

But hopes of a swift improvement have been dashed. The catchment basin at Fessenheim has been taken out of service, thereby improving the quality of tapwater from the Rhine in Baden-Württemberg and France, but problems have arisen further downstream.

Along the lower reaches of the river the six-per-cent reduction in the chloride count has only proved effective to the extent of between two and three per cent. At low-water the salt count in the Rhine has actually increased.

So a great deal more must be done to cope with the problems posed by the pumping of salt into the Rhine. The Wiesbaden conference appealed to all governments concerned to undertake additional measures to offset the latest trend.

But waterworks boards have no illusions about politicians coming to terms swiftly on suitable purification measures. The International Rhine Commission took roughly a quarter of a century to agree to the terms of the salt and chemicals agreement signed in Bonn last December.

In 1921 Germany and Holland set up a joint commission to protect the Rhine's stock of salmon. This commission was still going strong in 1950, which is more than can be said for the Rhine salmon, the last specimens of which perished that same year.

So the international working party of Rhine waterworks is only too happy to be able to report that the quality of water from the river is improving year by year.

Konrad Müller-Christiansen
Frankfurter Rundschau, 29 June 1977

to combat atmospheric pollution are the obvious first step.

The Berlin report's recommendation is a ceiling of twenty nanograms per cubic metre. In most parts of the country cadmium pollution in the atmosphere remains below this limit, but this is not the case everywhere.

In the countryside the count varies between two and three nanograms per cubic metres. In built-up areas the count is generally between five and fifteen, but in centres of heavy industry where the metal is processed the count is between fifteen and twenty-five.

Chemical compounds have likewise proved invaluable. Cadmium sulphide is used for yellow paint and cadmium selenide for red paint, while other compounds are used by manufacturers of photographic cells and PVC.

During production and processing a certain amount of cadmium finds its way into the atmosphere, soil and water. Since world output has increased a thousandfold since the turn of the century, pollution has increased accordingly.

As the cadmium report points out, cadmium traces are now found everywhere: in the atmosphere, in the soil, in the water we drink and the food we eat.

What makes cadmium so dangerous is that it gradually accumulates in the body, especially in the lungs and kidneys, without perceptibly affecting the health.

Yet once a certain level is reached in the kidneys the damage is virtually irreparable. The most spectacular instance in recent years was the Itai-Itai disease in Japan.

The report not only provides the

Bonn government with facts on which it can base national legislation; it may also pave the way for proposals at Common Market level.

(Handelsblatt, 24 June 1977)

■ KASSEL DOCUMENTA

The secret of the sixteen chairs

Documenta 6

Since 1955, when Arnold Bode organised the first Documenta arts show in Kassel, everyone concerned with this unique exhibition has willingly taken up the challenge of sounding out new directions in art all over the world.

Endeavours to present a cross-section of the international art scene undoubtedly bear comparison with a voyage of discovery, an expedition into uncharted terrain, in that they represent an attempt to clarify viewpoints at a point in time and artistic development.

Documenta organisers are given a free hand, which is surely to the eternal credit of the sponsors and everyone associated with the fair both financially and in terms of ideas.

Documenta is sponsored by the Bonn government, Hesse state, the city of Kassel and many private patrons.

Manfred Schneckenburger, the artistic manager of Documenta 6, this year's show, is a relative newcomer to Kassel. So are most of his associates. The founding fathers, as it were, have now entrusted a younger generation with the organisation.

Schneckenburger and his associates have not been content to rest on their predecessors' laurels. An increasingly wider view of what constitutes art has gained currency.

The dividing lines between conventional genres are growing blurred as they are joined by one new genre after another. The time had come, Schneckenburger decided, to rejig the entire underlying concept on which Documenta is based.

The concept which he decided best suits the wide range of art forms Documenta is intended to cover is the "media aspect".

In the foreword to the 1,100-page catalogue he reckons the concept "has proved a useful criterion for selection and arrangement at Documenta 6, enabling exhibits to be categorised in a manner that avoids the pitfall of both stylistic constructions and didactic series of illustrations."

The three-volume catalogue includes illustrations of all exhibits and costs 75 deutschmarks.

Within this concept framework the working parties entrusted with supervising various sections of the exhibition worked independently. The media aspect

recurs in varying intensity and is not felt by visitors to be in any way a strait-jacket.

Yet in view of the abundance of exhibits which are frequently poles apart the visitor is bound to feel somewhat at a loss on occasion. A modicum of educational pointers on the spot would have done no harm.

Documenta is not, on the other hand, intended to be an educational exhibition; but at the same time it is not aimed solely at practitioners and cognoscenti of modern art, but at the general public as a whole.

Documenta 6 is not limited to Kassel's art galleries and public buildings suitable for exhibition purposes — to the Fridericianum, the Orangerie, the upper storey of the Neue Galerie and the Royal Cinema.

It has deliberately been extended in scope and space to include open-air city-centre locations, Karlsruhe and its approach roads. Documenta is evidently aimed at the public, even taking to the road in the case Antoni Miralda's *Festival for Legs*, an allegorical open-air procession featuring a thousand participants.

Even between them, the catalogue, a shorter guide published by Bärenreiter-Verlag and Bazon Brock's resurrected "visitors' school" cannot hope to supply the breadth of information visitors really need, meritorious though they may be.

It remains to be seen whether the ten-part videotape series recorded by Channel Three of German TV will persuade a wider public to take a guided tour of the hundred-day Kassel art show in their own homes.

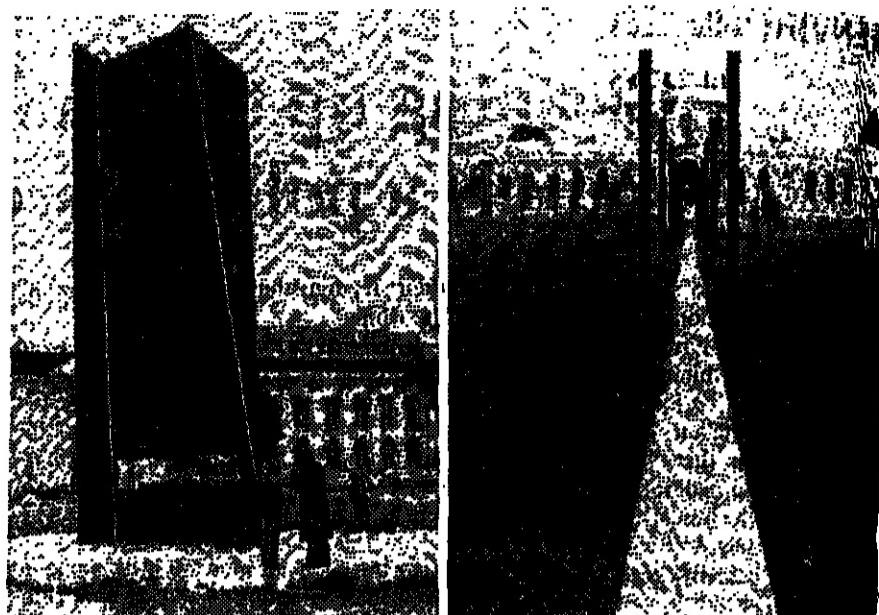
The videotape series is certainly worth noting as a starting point for alternative arts policies, and maybe this particular venture will indeed generate a wider interest in contemporary art.

Television is a medium well suited to conveying an idea of what Documenta 6 has to offer. With the aid of a single camera shot it can illustrate exhibits that are difficult to describe in words.

Art in the seventies is at times not even visible, however. Take, for instance, Walter de Maria's borehole on the lawn in front of the Fridericianum. This much-vaunted artistic venture consists of a hole that has so far progressed 500 metres or so in the direction of the centre of the Earth.

Can Gerz prove he actually made the journey or is it just a figment of his imagination? The artist prefers not to commit himself.

Thus the *Trans-Siberian Prospect* testifies to a disturbed and highly critical relationship with the reality we can see and experience. It is an experiment in sounding out the truth of time exper-



Richard Serra's *Terminal*, a tower of sheet steel, left, and Georg Trakas' bridge of steel at the Documenta

(Photo: dpa)

tended to remind us all that there are things we can neither see with the naked eye nor are in a position to grasp with Man's five faculties.

Taken to its logical conclusion, this message extends from criticism of our life and times to considerations of a metaphysical and even religious nature.

Richard Serra, another American artist, attempts to tackle much the same problem with one of the more spectacular exhibits at Documenta 6, a tower of sheet steel that is intended to demonstrate Man's inability to infer the nature of matter merely from the visual impression.

The exhibition of books that are as what they appear to be may be categorised under much the same heading. There is Alice Koch's *Knöll-Buch*, Herbert Zang's *Pizza Bag Book* and Dieter Roth's *Collection of Low-Lying Garbage*.

These and many other exhibits at this year's Documenta appear obtrusive at first. On closer scrutiny it will be appreciated that they are of inestimable value as a guide to contemporary view of art and a mirror of contemporary living.

By comparison the paintings of R. Lichtenstein, Willem de Kooning, Francis Bacon, Jasper Johns, Richard Hamilton, Goithard Graubner and Gerhard Richter seem relatively easy to comprehend — but only because we have grown accustomed to their way of looking at things.

This is even truer of the six painters and sculptors from the GDR whose works are on show at Kassel. Their work is of high quality and the ideological component has been scaled down substantially.

They remind us that the time has come to reappraise the widespread clichés about Socialist Realism — certainly as far as work done during the past two or three years is concerned.

As always, Documenta constitutes a challenge to rethink, to summon up courage to come to terms with something new and to ask critical questions with a view to gaining certainty about oneself.

Both visitors to Kassel and the public in general will have ample opportunity to do so over the next three months.

Rudolf Lang
(Hannoversche Allgemeine, 23 June 1977)

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The members of the Investigation Committee also suggest that the states apply the *Hochschulrahmengesetz* in such a manner as to invest the teaching staff with the necessary authority and that the number of student representatives be proportional to the number of those who actually took part in elections.

In order to counter the enormous pressure on the universities by the masses of students, the Council suggests that a strict system of interim examinations be introduced.

Furthermore, differences between the various types of institutions of higher learning should receive recognition in the interests of academic pluralism, and

following a study of seven universities in the Federal Republic of Germany, the International Council on the Future of the University presented its report on the development of German universities (the first of a series of such reports) at a press conference held in Berlin's Aspen Institute.

The Council was founded in 1970 and is made up of 15 internationally recognised scientists from 15 Western countries. Their yardsticks and basic principles are freedom of discussion at universities, their autonomy and the selection of the teaching staff according to criteria of qualification.

The German universities were chosen as the subject of their study because of their "unusual experimenting with new forms of administration and decision-making processes".

The politicising of universities, which was formerly considered a weakness of Latin American institutions of higher learning, has, according to the Investigation Committee of the Council, also affected the United States, Great Britain and France — albeit there only temporarily.

The image of German universities as it presents itself abroad is tarnished. When the International Council on the Future of the University, New York, embarked on a survey of seven German universities (including the Free University of Berlin) it received willing support everywhere.

The seven-member Investigation Committee was always correct in its interviews of students and teachers representing the most widely differing views and did not reveal its viewpoints until after it left Germany.

The Council, whose German representatives have from its very inception been members of the Federation for Freedom of Science or the *Notgemeinschaft* (Emergency Association), succeeded in writing a report which could hardly have been more negative.

Immediately after thanking the representatives of the universities under re-

view for their "outspokenness, frankness and hospitality", they depicted the president of the Free University as being as far "left" as possible.

But in doing so, the Council does not speak for itself, but makes use of quotations of the most extreme of many statements made in the course of interviews.

The Council points out that, due to this group principle, it is not qualified individuals who are delegated to the committees, but politically motivated group representatives.

It substantiates these theses by quoting a Federal law whereby the decision-making bodies of universities must have proportionate representation in equal parts by teachers, students and administrative staff.

But this law does not exist and is unlikely to do so in the foreseeable future because the *Hochschulrahmengesetz* provides for absolute majority on the part of teachers in all bodies making decisions on research, teaching and appointments.

This type of proportionate representation in all bodies now exists only at Bremen University. For a limited period, however, there were experiments with such representation carried out in some individual institutes of the Free University of Berlin and the Technical University of Constance and Darmstadt.

Speaking of the Free University of Berlin, the Council maintains that it is particularly adversely affected by the group principle and alleges that students have a direct say where the curriculum

much as possible, clashes with the police.

Nor is anything said about the fact that the president — with his statement on the reasons for the boycott — wanted to inform a misguided public rather than welcome the boycott as such. And yet the Council interviewed both university presidents and politicians.

The politicising and extremism at many German universities is blamed on the group principle. In doing so, the Council speaks of universities as a whole rather than of individual left-leaning specialised fields, which would be more in keeping with reality.

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Continued on page 12

EDUCATION

German universities too politicised, says report

DER TAGESSPIEGEL

special performance should be rewarded by budgetary subsidies.

In order to cope with the influx of students — especially where particularly long-term studies are concerned — the Council suggests that the still too rigid career requirements be reviewed and that employment qualifications even for high-ranking positions permit more leeway than hitherto.

The German universities were chosen as the subject of their study because of their "unusual experimenting with new forms of administration and decision-making processes".

The politicising of universities, which was formerly considered a weakness of Latin American institutions of higher learning, has, according to the Investigation Committee of the Council, also affected the United States, Great Britain and France — albeit there only temporarily.

The image of German universities as it presents itself abroad is tarnished. When the International Council on the Future of the University, New York, embarked on a survey of seven German universities (including the Free University of Berlin) it received willing support everywhere.

A few sentences further along, the quotation continues as follows: "It is impossible to get a job at the university — not even in the library — if one is not a Communist."

Small wonder that, in the light of

such quotations, the Council arrives at the conclusion that the Extremists Act (barring extremists from civil service) has barely had an effect other than to poison the atmosphere among students on strike, which led to their entering totally "distorted ideas".

Nothing is said about the fact that the university presidents moved the lectures from the campus in consultation with the Berlin Senate in order to prevent, as

English tuition should begin in the third grade of elementary schooling rather than, as practised hitherto, in the fifth grade.

This is the conclusion arrived at by educationalists of the Teachers' Academy of Lower Saxony, Department Brunswick, headed by Professor Peter Doty.

The educationalists were commissioned by the Volkswagen Foundation Hanover in 1970 to carry out a long-range study of the effectiveness of an earlier beginning of English tuition. This is the first empirical study of this nature in the Federal Republic of Germany.

The study reveals that pupils whose English tuition begins in the third grade acquire a knowledge of the language which, in the long run, is superior to that of students who have begun English in the fifth grade.

Moreover, the group university is accused of having its decision-making bodies staffed primarily by politically motivated representatives and of not necessarily appointing the most qualified people to such bodies.

As a result, the Council considers it understandable that the State Education Ministries frequently depart from the list of proposed nominees for these bodies.

In the interest of autonomy the Council suggests that the academic senates appoint committees of experts which could review one-sided nominations in the various specialised sectors.

The Council also criticises the dividing up of universities into too many specialised sectors and suggested the reintroduction of faculties or interdisciplinary committees.

The members of the Investigation Committee also suggest that the states apply the *Hochschulrahmengesetz* in such a manner as to invest the teaching staff with the necessary authority and that the number of student representatives be proportional to the number of those who actually took part in elections.

In order to counter the enormous pressure on the universities by the masses of students, the Council suggests that a strict system of interim examinations be introduced.

Furthermore, differences between the various types of institutions of higher learning should receive recognition in the interests of academic pluralism, and

English tuition should begin in third grade

favour of those students who began their English classes in the third grade.

On the other hand, there were no differences in the two groups of students concerning their performance in arithmetic and German. It therefore follows that an earlier beginning of English tuition would have no adverse effect on performance in other subjects.

At the end of the five-year experiment, the students themselves considered the earlier study of English a gain.

The objective of the research project, for which the Volkswagen Foundation approved about DM383,000, was to examine whether English tuition in elementary schools will lead to better results than the customary beginning of such tuition in the fifth grade.

To this end, practical experiments were carried out at schools in Brunswick, Wolfsburg, Salzgitter and some nearby villages, with all third graders at these schools being given English lessons in the fifth grade.

Most of the teachers maintain, however, that the following conditions must be met: Only teachers with adequate linguistic and educational qualifications for the teaching of 8 to 10-year-olds should be entrusted with the job; only if lessons in the fifth grade continue without a break at the level reached by the early starters is an efficient English tuition possible.

At the end of every school year, students were subjected to tests of English performance; and at the end of the fifth, sixth and seventh school years, their performance was compared with the performance of students in parallel classes who started their English tuition in the fifth grade.

And finally, English tuition for early starters must be spread over the week in small units (in the experiment, third graders were given 20 minutes a day during a five-day week); fourth graders received 30 minutes a day for four days and a full hour on the fifth day).

The tests showed most significant differences in the knowledge of English in

Burkhard Weiß
(Büro für Kinder- und Jugendforschung, 15 June 1977)

■ OUR WORLD

More children learning their 'mother tongue' from TV

Frankfurter Allgemeine

The German word for native tongue is *Muttersprache*, or the language we learn from our mothers, but according to linguists at Münster University children nowadays learn much of their vocabulary from the TV set.

Professor Walter Rest and a group of specialists in child linguistics at Münster teacher training college have just published the results of three years spent studying the problem.

In the past it has been deemed a matter of course that the children of parents with an above-average command of language are bound to fare better at school than children from families with lower educational standards.

This differential nowadays appears to have been offset in quantity, if not in quality, by the all-pervading influence of television.

Children from all manner of family backgrounds started school, much to the surprise of linguists engaged in the research project, with an extensive vocabulary based mainly, or so it seemed, on TV advertising slots and detective serials.

Children at a primary school in Münster were questioned and found, at the age of six, to have a far larger vocabulary than teachers had expected.

What is more, the words with which they were acquainted decidedly owned more to television than to what children used to learn from mother.

Professor Rest and his associates also reached another surprising conclusion. Their Münster schoolchildren were acquainted with more than 60,000 words of which 4,770 were different.

So between them these first-year schoolchildren knew 4,770 different words, of which 2,700 were clearly of the kind small children learn in conversation at home. A mere 570 words were unquestionably "school words" and the

remaining 500 could with equal ease be attributed to either category.

The inference is that in their first year at school children learn a mere 500 new words or so. The number steadily increases as children make their way through primary school, but the proportion of new words learnt from TV remains substantial.

There is, Professor Rest continues, a wider gap than ever between children's spoken language and the written language they learn at school, so much so that they might well be separate languages.

The written language taught at school is the vocabulary of a cameo world in which life is serene and somewhat un-

Continued from page 11

is concerned, although this, too, is not the case.

The teaching staff has always been free in presenting their subjects, and there have only been committee decisions concerning time-tables and the examination systems.

The Council says nothing about the fact that even before the *Hochschulrahmengesetz* (since a Constitutional Court ruling) the teaching staff of Berlin's universities has held half the votes concerning teaching matters and has carried considerable weight in decisions on qualifications.

The fact that present laws have led to a consolidation at Berlin's universities is also swept under the carpet.

In Germany, too, politicians and university members — regardless of their political inclinations — embrace the principle of freedom, scientific objectivity and autonomy of universities.

Only a thorough analysis of the historic background can make it clear that the university reform is not at odds with logic and that the amendments introduced by it promote the very principles adhered to by the Council. So far, the Council's report cannot be deemed a scientific analysis.

If the teaching staff is to have the absolute majority in a 21-person body, they must be given at least 11 seats,

realistic. The TV-tinged spoken language testifies to expressions of violence, advertising slogans and views and prejudices the children unquestioningly adopt from their elders.

Professor Rest is convinced that research into the language of schoolchildren is of substantial importance. Tension that arises at primary school as a result of linguistic difficulties can be eliminated or reduced by means of careful field work and evaluations on which teachers can base their approach to the pupils.

Television may have served to bridge the quantitative gap between the word-power of children from different family backgrounds, but qualitative differences in the children's ability to express themselves remain.

Professor Rest and his fellow-linguists in Münster hope to conduct further research into these subtler differences.

dpa

(*Frankfurter Allgemeine Zeitung für Deutschland*, 23 June 1977)

which means that the remaining group of students, research staff and administrative staff would receive only 10 seats — in other words four seats each for research assistants and students and two seats for the administrative staff.

The International Council, which considers it meaningful that students should be represented in committees, should clarify what effect four students representatives on such a committee can have in politicising a university, bearing in mind that the teaching staff has the absolute majority.

It would be most welcome if the Council were to remove distortions from its report before disseminating the English version throughout the world.

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Uwe Schlicht
(*Der Tagesspiegel*, 21 June 1977)

that remaining group of students, research staff and administrative staff would receive only 10 seats — in other words four seats each for research assistants and students and two seats for the administrative staff.

Doctors claim in the report that children are being overtaxed by family, emotional and religious problems, by loneliness, by the feeling of being just one of a herd at school, by school classes so large that teachers have no time to cultivate an individual relationship with each of their pupils.

The upshot is that children are restless, listless and disturbed in their educational and general development.

In 1975 roughly 100,000 school-leavers in the Federal Republic of Germany left school without qualifications of any kind. By next year the Stuttgart institute anticipates that this figure will have increased to 125,000.

All 125,000 are human tragedies — youngsters whose talents have been neglected because, with the emphasis on the three Rs, they have, right from the start of their school careers, been classified as failures.

Educationalists in several states have estimated, the report continues, that up to three out of ten schoolchildren are in need of special educational encouragement.

Doctors are particularly alarmed at the increasing intake of pep pills and tranquilisers by children and young people. Twenty-seven per cent of twelve-year-olds and 42 per cent of fourteen-year-olds also regularly drink alcohol at least three times a week.

Thirty-six per cent of six- to fourteen-year-olds smoke — either occasionally or regularly.

This, the Stuttgart report claims, may well be the harbinger of a catastrophe for both the country as a whole and the health authorities in particular.

So many juveniles under the age of sixteen have taken up smoking that by the time they reach the age of forty many of them are likely to suffer from incurable lung cancer.

Doctors also call on parents to ensure that their children do not eat too many sweets and generally live on a balanced diet. The 14.3 million children of school age between them spend 300 million deutschmarks a year on sweets and chocolate.

As a result two out of ten children are overweight and frequently suffer socially from being too fat.

The Stuttgart doctors note that a US survey has reached the conclusion that youngsters can only be taught effectively to change their entire outlook before they reach puberty.

Yet parents do not seem to worry what programmes their children watch and what effects their viewing may have, "and then they are surprised when the children suddenly behave in a manner for which they can find no explanation."

Dieter Bartel/dpa

(*Die Welt*, 24 June 1977)

Children the losers when TV dominates family life

Kojak and Cannon are well on their way to taking over as father figures in most households in this country. Families seem to spend most of their time watching TV, or so Frankfurt pollsters claim.

Psychologists employed by Psychata, a Frankfurt market research institute, observed the habits of 85 families on ten evenings on behalf of the Government and the country's major TV channels.

They discovered to their dismay that under the all-pervading influence of TV the family is no longer able to engage in meaningful conversation or even discuss problems, let alone solve them.

Psychologist Jochen Toussaint noted at a recent conference of youth welfare officers in Düsseldorf that "we find there are three kinds of families.

"The first category wages cold war along the lines of 'Sit down! Watch TV!' and 'Shut up!' Were it not for the TV set the members of this kind of family would gun for each other sooner or later because they are no longer able to communicate with each other.

"In the second category of family, TV is the family's family's favourite game, and everyone can take part. Conversa-

a day with their eyes glued to the screen. Their programme selection amounts to a fairly rudimentary choice along the lines of "there's not much on Channel One, I wonder what's on the other channel" (eases behind from armchair and lopes off in the direction of the set to press the appropriate button).

The Frankfurt opinion poll reveals that parents (the 85 families questioned all had children aged sixteen or under) well appreciate that TV does the children no good, or at least is by no means entirely beneficial, but at the same time they appear convinced that this does not apply to their own offspring.

In the afternoon, Jochen Toussaint comments, mothers are only too relieved that children are busy watching TV while they have a chance to catch up with the housework.

Yet parents do not seem to worry what programmes their children watch and what effects their viewing may have, "and then they are surprised when the children suddenly behave in a manner for which they can find no explanation."

Dieter Bartel/dpa

(*Kölner Nachrichten*, 21 June 1977)

Alarming increase in children's emotional disturbances

A n alarming increase in health and emotional disturbances among children and juveniles is felt to have taken place in recent years by the Health Education Institute, Stuttgart.

In an intermediate report on young people, narcotics, nicotine, alcohol and pep pills, not to mention juvenile suicide and emotional upsets, are claimed to be symptomatic of a tendency to overstimulate children and young people.

Children these days seem to be in such emotional straits that it is high time schooling, upbringing and family background were thoroughly reappraised.

Doctors claim in the report that children are being overtaxed by family, emotional and religious problems, by loneliness, by the feeling of being just one of a herd at school, by school classes so large that teachers have no time to cultivate an individual relationship with each of their pupils.

The upshot is that children are restless, listless and disturbed in their educational and general development.

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Headache clinics in London, New York and Chicago have been engaging in a strictly organic therapy, viewing emotional factors as mere components among the bundle of causes.

Theories of contracting and expanding blood vessels as well as biochemical elements dominate this school of thought.

This seems to be borne out by the relatively short duration of attacks and physical phenomena such as paleness, red spots on the skin, nausea, vomiting, muscle cramps and passing neurological symptoms. But all this does not explain what causes migraine attacks and why they never lead to lasting pathological and anatomical changes.

There is no theory as yet that would explain all symptoms of migraine and that would be applicable in all cases.

The first promising experience with new forms of therapy has now been gathered at the Mainz pain clinic. An inter-disciplinary work group in which Professor Peters took part in his capacity as a psychiatrist treated migraine patients who had made all conceivable efforts to rid themselves of their pain.

The range of experience extended from repeated examinations with unpleasant diagnostic procedures all the way to acupuncture and surgery.

The personal history of the patients provided no clues. They all had normal family lives, had no particular problems and were satisfied with their jobs. Says Professor Peters: "The only thing conspicuous about them was that they were so thoroughly inconspicuous."

Doctors also call on parents to ensure that their children do not eat too many sweets and generally live on a balanced diet. The 14.3 million children of school age between them spend 300 million deutschmarks a year on sweets and chocolate.

As a result two out of ten children are overweight and frequently suffer socially from being too fat.

The Stuttgart doctors note that a US survey has reached the conclusion that youngsters can only be taught effectively to change their entire outlook before they reach puberty.

Yet parents do not seem to worry what programmes their children watch and what effects their viewing may have, "and then they are surprised when the children suddenly behave in a manner for which they can find no explanation."

Dieter Bartel/dpa

(*Kölner Nachrichten*, 21 June 1977)

MEDICINE

Latent fears the cause of most migraines, says psychiatrist

C hronic headaches and migraine are as widespread as they are hard to cure. The Federal Republic of Germany alone has some four to six million people suffering from these ailments.

Some headaches are attributable to physical reasons, such as side effects of an infectious disease or of brain tumour. But 90 per cent of headaches are due to psychosomatic causes for which we have no uniform therapeutic concept.

As Professor U.H. Peters of the Neuro-psychiatric University Clinic in Mainz put it at the recent German Congress for Supplementary Training in Berlin, headaches are in most instances a matter for psychiatrists since they are most frequently due to latent existential fears, according to latest findings.

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by gently massaging, which should take place as soon as possible after the first symptoms have occurred. The treatment is usually effective after about 30 minutes.

Due to the fact that migraine attacks frequently occur in the morning and have usually disappeared after the patient has had a good night's sleep, the patients in Mainz were initially subjected to a no-sleep therapy.

The reasons for this was that group therapy and physical training were intended to resolve tensions and fears. This method of treatment improved the general condition — although in some instance with some delay.

In order to deprive stubborn migraine of its basis it is necessary, according to Professor Peters, to restructure the patient's outlook on a long-term basis in a close relationship with a qualified therapist.

The physician must be a stabilising factor for the patient, thus enabling him to gradually resolve hidden existential fears and conflicts.

Once these fears have disappeared, migraine attacks, too, become more rare and finally disappear altogether. Although time-consuming, this therapy is worthwhile

■ OUR WORLD

Fifth generation of 'mechanical man' already on the drawing-board

Hundreds of thousands of jobs in Europe are to be filled by industrial robots in the eighties. The new branch of industry thus wants to humanise work. But at the same time it will of course create redundancies.

At present Europe's industry "employs" some 2,000 of these steel monsters.

The waiter who poured the frothing beer for the students gathered in the hall was a robot by the name of Tralifa, and his apron was of steel. This scene, which could have come straight out of a science-fiction novel, took place recently at Stuttgart's Technical University and was intended as a demonstration of the precision of work performed by robots.

Tralifa, a Norwegian product, is not alone. He has numerous fellow-workers by now; but most of them work as welders and painters in industry rather than serving beer.

The industrial robot has long ceased to be utopian and has become a reality watched with a great deal of mistrust on the part of the trade unions.

At present some 2,000 "colleagues" of Tralifa's, made by 40 manufacturers from many nations ranging from Japan to the United States, hammer, weld, spray-paint and sort various goods in Europe's industry.

These so-called industrial robots of the first and second generation work at the Volkswagen plant in Wolfsburg, at Presswerk Kokfeld or at the Motorenfabrik Kokkums Jernverks AB in Kalmar-Ronneby, Sweden.

In Japan, which is the leader in the new technology, many foundries have been largely automated by means of robots. And at the Jena glassworks in Mainz robots handle the fragile goods of that factory.

Among the manufacturers of robots are the Swiss Prometec AG in Regensdorf, Robert Bosch GmbH, Stuttgart, Industriewerke Karlsruhe, the Volkswagen Works in Wolfsburg, the Japanese firm Kawasaki Ltd., the US companies Unimation and AMF Versatran, the

Italian Norda SPA, the English Metal Box Ltd., the Norwegian firm Tesa and the Swedish Kaufeldt AB.

According to a highly classified industrial study, some 420,000 jobs in the Federal Republic of Germany alone are suitable for robots.

This is only two per cent of jobs in this country. But should it be possible to automate the sorting and the clamping down of the material to be worked on and to carry out controls by specialised staff or automatically, robots could replace 35 per cent of our labour force.

According to the study, it is technically perfectly feasible to design all new machines in such a way that they can be operated by robots.

In another classified study — this time of the European robot market — the American market researchers Frost and Sullivan arrived at the conclusion that the present market volume of 70 million Swiss francs per annum could rapidly be expanded.

They speak of figures in the region of 1,300 million Swiss francs per annum by 1985 as perfectly feasible. Added to this would be another 4,200 million Swiss francs for robots of the next generation which would not only have efficient sensors with which to recognise various objects, but would be equipped with a computer "mind", enabling them to replace highly qualified personnel.

Another study by the Stuttgart university professor Hans-Jürgen Warnecke — formerly an executive at the Brunswick camera manufacturer Rollei — does not share these optimistic views.

Professor Warnecke's Institute for Industrial Manufacture and Factory Management believes that it will take longer to develop this third generation of robots.

This is due to the development of industrially usable and economical sensors as well as the use of mini-computers.

Many research laboratories and industrial companies in the Far East are therefore developing industrial robots at a stepped-up pace.

The Stuttgart robotologist pins his hopes on the development of programme-controlled industrial robots with efficient sensors because research and development are somewhat stagnating at present, following the initial euphoria. Even so, the market volume forecast by Professor Warnecke is similar to that of Messrs Frost and Sullivan. Researchers and manufacturers will meet for their eighth international symposium from 21 to 23 January 1978 in Stuttgart (the seventh symposium is to be held in Tokyo this coming October). The symposium will be attended by the elite of the new science. According to bulletins issued by robotologists, they have devoted themselves to the new technology because industrial robots will "greatly contribute towards humanising work." A great number of jobs, such as the sorting and assem-

bling of parts — uninteresting occupations which hardly test Man's mental capacity — could be automated as a result of this development. The same applies to dirty jobs, which are to be increasingly done by machines.

According to robotologists, this humanisation of work is primarily aimed at making Man do jobs which are in keeping with his abilities, which provide him with a scope of decision, awaken his interest and provide him with a better opportunity of realising himself at work.

This applies above all to such branches of industry as foundries, sheet-metal works and the manufacture of component parts. Incidentally, these are also the jobs with the highest accident rates (about 300 accidents per 1,000 employees).

The robot is thus to be used primarily in manufacturing processes involving work with noxious substances and exposure to noise, heat and unbalanced physical strain. It is to replace heavy physical work and do away with short work-cycles.

In other words, the robot is to replace Man in jobs where occupational diseases and accidents are the order of the day.

According to robotologists, the social clashes of tomorrow will in any event revolve not so much around wages as around aspects such as safety, promotion and scope of decision at work.

Japan is at present the undisputed leader where the new technology is concerned. There, robots already have their established place in foundries, welding processes and spray-painting. According to Japanese experts, the range of uses for robots will shortly expand enormously.

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In Europe, the emphasis still lies on technical simplifications: Thus for instance, Professor Warnecke's Institute is engaged in work on the development of simplifications that would make the use of robots increasingly more economical, as for instance in cases where the sensors developed by foreign competitors have proved too costly. The American Stanford Research Institute and the Massachusetts Institute of Technology have done pioneer work in the field of sensors. But Kawasaki Heavy Industries and the Mitsubishi Electric Corporation in Japan have also done a yeoman's job in developing and perfecting optical

systems capable of recognising shapes. Robots equipped with sensors can keep pace with any human worker in production processes, and their performance is always at peak because they do not tire.

The pure hardware cost of the Kawasaki system is estimated at 60,000 Swiss francs, but the managers of Kawasaki hope to be able to reduce costs soon. They are particularly interested in doing so because the cost of adapting the environment of a machine to robot operation is roughly the same again.

Among Germany's most interesting recent robots are the so-called PPI-PM 12 made by the Pfaff-Pietzsch Industrial-roboter GmbH and the VW industrial robot whose outstanding features are the minimal space requirement and a mini-computer control as well as the potential for further development. The VW management is meanwhile considering establishing a separate robot company.

Feasibility studies made by the German Work Group for Operational Systems arrived at the conclusion that notwithstanding the high purchase cost of a robot (about DM200,000) their use is economically feasible.

Although changes and adaptations of machines would cost another DM160,000, the robot would replace three men each in two shifts, thus saving DM212,000 in annual labour costs.

The study arrived at two startling figures: A robot would pay for itself within 1.42 years and would yield a profit on capital invested of 50.05 per cent per annum. Therefore, the more wages increase, the more does the cost relation robot-man shift in favour of the robot.

On paper, however, robotologists have progressed much further. They are already occupying themselves with the fifth generation of robots. According to them, mechanical man would then have the ability to improve his work constantly from his own resources.

As a result many players showed greater self-confidence and greater readiness to take the initiative. Thus, for instance, of the performances of Rüdiger Abramczik, Manfred Kaltz and Bernd Höflein against Argentina, Schön reckons the team proved the point against Argentina, Uruguay and Brazil.

In Argentina, Helmut Schön claims,

the crowd were delighted by the man-to-man soccer the visiting team played, while in Brazil the home team were put well out of their stride.

"The South American tour proved to me yet again how crucial the team's attitude is. Profit and prestige may both be more important considerations than they are used to be, but in the final analysis the football is what counts."

Young players and newcomers to the national squad, such as Klaus Fischer, Rüdiger Abramczik and Manfred Kaltz, have gained personal experience of what it is like to reach the top of the tree, and all of them will have realised that even at international level you are not left to your own devices.

"Indeed, team spirit and cohesion have seldom been as good as they were at the end of this tour, and the fine performances of the newcomers are a sure sign that they gained in self-confidence because they were immediately accepted as team-mates by the old hands."

Helmut Schön dismisses as minor problems the tension that may arise between individual players contesting a single position on the field, rivals such as Heinz Flohé and Dieter Müller of Cologne, for instance. "I have told both

— but not my lads!" Schön can certainly be sure of his squad on this point.

"Even in Mexico, where the final match was played on a waterlogged pitch that required the utmost in body control and every last ounce of will-power and muscle, the team did not scale down for a moment the pace of either attack or defence."

Helmut Schön is evidently proud of his present squad, "the members of which, with the odd exception, will be Argentina-bound for next year's World Cup tournament."

The preliminary squad of forty players will be nominated at the end of April 1978, with the final 22 being named in June, a week before the deadline.

Schön does not look forward at all to making this invidious selection. He knows only too well how keen all the players he has approached are to play in the World Cup squad and how seriously they are all taking their preparations for the forthcoming season of club soccer.

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"The South American sides increasingly argued among themselves as the game progressed, which is a sure sign that they were losing both their grip on the game and the understanding that welds a team out of eleven individual soccer players."

"When a team is in disarray the players are more likely to throw in the towel."

Daniela Gruber bowls over her opponents in Helsinki



(Photo: Bundesbildstelle)

players that as far as I am concerned they are both sure of a place in the squad as things stand."

Coming from Helmut Schön these words mean an unusual gesture of confidence and virtual certainty that both players will be selected, depending on who the opponents are.

Between now and the 1978 World Cup tournament fixtures are lined up against Italy, Brazil, England and the Soviet Union, amongst others, and these fixtures will be used to give the team an opportunity of getting used to playing together and perfecting tried and trusted techniques.

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Robots helping children across the road... and demonstrating skiing techniques (Photo: dpa)

■ SPORT

We did well in South America, says national soccer coach Schön

DIE ZEIT

A sked what he had learnt from the national soccer squad's tour of South America in preparation for next year's World Cup tournament. In Argentina, chief coach Helmut Schön was at no loss for an answer.

"We shall be sticking to our own style of play and trying to maintain an equally good record in attack and defence," Schön said.

"In 1972, when the team won the European championships, our football was, perhaps, more attractive, more brilliant than at present. In 1974, when we won the World Cup in Munich, the team was both experienced and successful.

"But the squad that played so well in South America beating Argentina 3:1 and Uruguay 2:0 and drawing one-all with Brazil and two-all with Mexico over a period of ten days, did not fare at all well."

"There may not have been the highlights and surprises that were the hallmark of Franz Beckenbauer, but each and every member of the current squad shouldered more responsibility."

"As a result many players showed greater self-confidence and greater readiness to take the initiative. Thus, for instance, of the performances of Rüdiger Abramczik, Manfred Kaltz and Bernd Höflein against Argentina, Schön reckons the team proved the point against Argentina, Uruguay and Brazil.

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The two crucial fixtures on the South American tour were those against Argentina and Brazil, both of which are highly fancied to challenge this country in its bid to retain the World Cup next year.

Both games bore out another of Helmut Schön's maxims, that success will depend on the cornerstones of the approach to the game he and his teams have evolved over the years. These cornerstones are marking the main providing sound defensive backing.

Preparations for Helsinki began in 1975 after the world championships in London. For the past two seasons coaches Gerhard Bettinger of Stuttgart and Franz Oswald of Nuremberg have given

Daniela Gruber bowls over her opponents in Helsinki

Daniela Gruber (Photo: Werez)

(Süddeutsche Zeitung, 29 June 1977)